

Demochares has lived a fourth of his life as a boy, a fifth as a youth, a third as a man, and has spent 13 years in his dotage. How old is he?

How old is Demochares?

(Note: The phrase "in his dotage" refers to the period of Demochares' old age.)

$$\frac{1}{4} + \frac{1}{5} + \frac{1}{3}$$

$$\frac{15}{60} + \frac{12}{60} + \frac{20}{60} = \frac{47}{60} + \frac{13}{60} = 60 \text{ yrs}$$

$\begin{array}{c} \text{old} \\ \downarrow \\ \frac{13}{60} \end{array}$

A Statue of Pallas Athena had this inscription:
 "I Pallas, am made of pure gold, which was
 donated by the poets. Half was given by Karisens,
 an eighth by Thespian. Solon gave a tenth, and
 Themison a twentieth. Nine talents' worth of
 gold were still needed, and Aristodikos gave
 that." How much gold did the statue
 contain?

$$\frac{1}{2} + \frac{1}{8} + \frac{1}{10} + \frac{1}{20}$$

$$\frac{20}{40} + \frac{5}{40} + \frac{4}{40} + \frac{2}{40} = \frac{31}{40} + 9$$

40 talents
 total
 2288 lbs

Polykrates, the moneylender, asked Pythagoras, the scientist: "Pythagorus, how many scholars live in your house?"

Pythagoras answered: "Half the scholars are dedicated to writing, 1 fourth are dedicated to studying the wonders of nature, and 1 seventh contemplate in silence. Three ~~complete~~ others complete the household."

⇒ How many people were in the house altogether?

$$\frac{1}{2} + \frac{1}{4} + \frac{1}{7}$$

$$\frac{14}{28} + \frac{7}{28} + \frac{4}{28} = \frac{25}{28}$$

$$\frac{3}{28} = 3 \text{ people}$$

$$(28 \text{ total})$$